

Notice of Allowability

Application No.

10/743,077

Examiner

Dah-Wei D. Yuan

Applicant(s)

HOWARD ET AL.

Art Unit

1745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 2/6/07.
2. ☒ The allowed claim(s) is/are 1,4,9 and 10.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

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**HIGH VOLTAGE LAMINAR CATHODE MATERIALS FOR LITHIUM
RECHARGEABLE BATTERIES, AND PROCESS FOR MAKING THE SAME**

Examiner: Yuan

S.N. 10/743,077

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April 6, 2007

Detailed Action

1. The Applicant's amendment filed on February 6, 2007 was received. Claims 2,3,5-8 were cancelled. Claims 1,9 were amended.
2. The text of those sections of Title 35, U.S.C. code not included in this action can be found in the prior Office Action issued on November 9, 2006.

Claim Rejections

3. The claim rejections under 35 U.S.C. 102(b) as anticipated by Igawa et al. on claims 1,2,5-8 are withdrawn because the independent claim 1 has been amended. The claim rejections under 35 U.S.C. 102(b) as anticipated by Gao et al. on claims 9,10 are withdrawn because the independent claim 9 has been amended.

Reasons for Allowance

4. Claims 1,4,9,10 are allowed. The invention of independent claim 1 recites an intercalation cathode material having the formula $\text{Li}[\text{Li}_{(1-2x)/3}\text{M}_y\text{Mn}_{(2-x)/3}\text{Ni}_{(x-y)}]\text{O}_2$, where $0.1 \leq x \leq 0.4$ and $0 < y \leq 0.15$, $x > y$, and M is one or more divalent cations selected from Ca, Cu, Mg and Zn. The closest prior art of record, Igawa et al., does not teach the formula as stated in the claim. The invention of independent claim 9 recites a method for making an improved layered

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lithium manganese nickel oxide cathode material of the $\text{Li}[\text{Li}_{(1-2x)/3}\text{M}_y\text{Mn}_{(2-x)/3}\text{Ni}_{(x-y)}]\text{O}_2$, where $0.1 \leq x \leq 0.4$ and $0 < y \leq 0.15$, $x > y$, and M is one or more divalent cations selected from Ca, Cu, Mg and Zn. The closest prior art of record, Gao et al., does not teach a method for making the oxide having the formula as stated in the claim.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dah-Wei D. Yuan whose telephone number is (571) 272-1295. The examiner can normally be reached on Monday-Friday (8:00-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan, can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dah-Wei D. Yuan
April 6, 2007


DAH-WEI YUAN
PRIMARY EXAMINER